

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended): A connective tissue distraction device comprising:

first transmitting means for transmitting force to a first tissue region, and including a first flange engagement structure;

second transmitting means for transmitting force to a second tissue region, and including a second flange engagement structure; and

expansion means including a first flange that engages for engaging the first flange engagement structure of the first transmitting means, and further including a second flange that engages the second flange engagement structure of and the second transmitting means, the expansion means for exerting force distracting the first transmitting means from the second transmitting means to create a distraction space for formation of distracted connective tissue,

wherein the first flange disengages from the first flange engagement structure and the second flange disengages from the second flange engagement structure and for disengaging from the first transmitting means and the second transmitting means after the distraction is complete and before the period of bone consolidation,

wherein at least one of the first transmitting means, the second transmitting means and the expansion means comprises a biodegradable, bioerodible or bioresorbable material.

Claim 2 (Previously Presented): The connective tissue distraction device of claim 1, wherein the first transmitting means comprises a structure for attachment to bone.

Claim 3 (Previously Presented): The connective tissue distraction device of claim 2, wherein the structure for attachment to bone comprises at least in part a biodegradable, bioerodible or bioresorbable material.

Claim 4 (Previously Presented): The connective tissue distraction device of claim 2, wherein the structure for attachment to bone is a plate.

Claim 5 (Previously Presented): The connective tissue distraction device of claim 2, wherein the structure for attachment to bone is attached to bone via at least one screw.

Claim 6 (Previously Presented): The connective tissue distraction device of claim 5, wherein the screw is at least in part biodegradable, bioerodible or bioresorbable material.

Claim 7 (Original): The connective tissue distraction device of claim 1, wherein the second transmitting means comprises a structure for attachment to bone.

Claim 8 (Previously Presented): The connective tissue distraction device of claim 7, wherein the structure for attachment to bone is at least in part a biodegradable, bioerodible or bioresorbable material.

Claim 9 (Original): The connective tissue distraction device of claim 7, wherein the structure for attachment to bone is a plate.

Claim 10 (Previously Presented): The connective tissue distraction device of claim 7, wherein the structure for attachment to bone is attached to bone via at least one screw.

Claim 11 (Previously Presented): The connective tissue distraction device of claim 10, wherein the screw is at least in part a biodegradable, bioerodible or bioresorbable material.

Claim 12 (Original): The connective tissue distraction device of claim 1, wherein at least one of the first transmitting means, second transmitting means or the expansion means comprise a malleable or heat malleable material.

Claim 13 (Previously Presented): The connective tissue distraction device of claim 1, wherein the first tissue region comprises connective tissue.

Claim 14 (Previously Presented): The connective tissue distraction device of claim 1, wherein the first tissue region comprises bone.

Claim 15 (Previously Presented): The connective tissue distraction device of claim 1, wherein the second tissue region comprises connective tissue.

Claim 16 (Previously Presented): The connective tissue distraction device of claim 1, wherein the second tissue region comprises bone.

Claim 17 (Original): The connective tissue distraction device of claim 1, wherein the expansion means comprises a screw actuated expansion mechanism.

Claim 18 (Previously Presented): The connective tissue distraction device of claim 1, wherein the expansion means comprises at least in part a biodegradable, bioerodible or bioresorbable material.

Claim 19 (Original): The connective tissue distraction device of claim 1, further comprising an activation means.

Claim 20 (Previously Presented): The connective tissue distraction device of claim 19, wherein the activation means is directly or indirectly engaged with expansion means.

Claim 21 (Previously Presented): The connective tissue distraction device of claim 20, wherein the activation means is reversibly engaged with the expansion means.

Claim 22 (Canceled).

Claim 23 (Canceled).

Claim 24 (Previously Presented): The connective tissue distraction device of claim 19, wherein at least a portion of the activation means is external to the subject.

Claim 25 (Currently Amended): A method of distracting a first tissue region and a second tissue region, comprising:

implanting a first transmitting means having a first slot onto the first tissue region;

implanting a second transmitting means having a second slot onto the second tissue region;

engaging a first flange of an expansion means with the first slot of the first transmitting means;

engaging a second flange of the expansion means with the second slot of the second transmitting means;

activating the expansion means to exert a force distracting the first transmitting means from the second transmitting means to create a distraction space for formation of distracted tissue; and

disengaging the expansion means from the first transmitting means and the second transmitting means after the distraction is complete and before the period of bone consolidation.

Claim 26 (Previously Presented): The method of claim 25, further comprising separating the first and second tissue regions before implanting of the first and second transmitting means.

Claim 27 (Previously Presented): The method of claim 26, further including separating the first and second tissue regions via an osteotomy before implanting of the first and second transmitting means.

Claim 28 (Previously Presented): The method of claim 27, further including separating the first and second tissue regions via an osteotomy on tissue intermediate the first and second tissue regions.

Claim 29-41 (Canceled).

Claim 42 (Currently Amended): A connective tissue distraction device comprising:

- a first transmitting structure that transmits force to a first tissue region;
- a second transmitting structure that transmits force to a second tissue region; and
- an expansion structure that is not integral with the first and second transmitting structure and that engages the first transmitting structure and the second transmitting structure, exerts a force that distracts the first transmitting structure from the second transmitting structure to create a distraction space for formation of distracted connective tissue, the expansion structure further comprising:

a proximal end having a first flange that engages a first slot of the first transmitting structure; and

a distal end having a second flange that engages a second slot of the second transmitting structure;

and disengages from the first transmitting structure and the second transmitting structure after the distraction is complete and before the period of bone consolidation.

wherein at least one of the first transmitting structure, the second transmitting structure and the expansion structure comprises a biodegradable, bioerodible or bioresorbable material.

Claim 43 (Previously Presented): The device of claim 42, wherein the first and second transmitting structures each comprise one of a plate, a stent, a mesh or an implant.

Claim 44 (Previously Presented): The device of claim 42, further including attachment structures that attach the first and second transmitting structures to the first and second tissues regions, respectively.

Claim 45 (Previously Presented): The device of claim 44, wherein the attachment structures comprise one of screws, staples, tacks, pins, or nails.

Claim 46 (Previously Presented): The device of claim 44, wherein the attachment structures comprise a biodegradable, bioerodible or bioresorbable material.

Claim 47 (Previously Presented): The device of claim 44, wherein the first and second tissue regions each comprise one of bone or connective tissue.

Claim 48 (New): The connective tissue distraction device of claim 1, the first flange engagement structure having a first slot that engages the first flange of the expansion means and the second flange engagement means having a second slot that engages the second flange of the expansion means.